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THE PROBLEM OF RAILWAY TRAINMEN'S WAGES

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I ECONOMIC CONSIDERATIONS

Steam railways of the United States had an average pay roll during the fiscal year ended June 30, 1916, of not far from 1,700,000 persons, and paid out some \$1,500,000,000 in wages. These enormous, almost inconceivable, aggregates represent the activities of an industry which, not only because of its magnitude but also because its operations are the pulse-beats of the nation's economic life, is of the most vital interest to every citizen. Since the item of compensation to employes represents two-thirds of the total expenditures of the railways, we see why the problem of railway wages lies so close to our minds and our pocketbooks. Of especial importance is the problem when, as in the eight-hour day agitation of the railway trainmen in 1916, any increase in rate of pay, resulting in an increased wage aggregate, threatens to translate itself almost immediately into increased freight or passenger rates.

II BASIS OF TRAINMEN'S COMPENSATION

Railway trainmen represent a group of employes whose basis of compensation differs from that of any other class of labor, either within or without the railway industry. Not only is their work peculiar to the railway industry, but it is *sui generis* as to method of compensation. The problem of the hours of labor and the wages of trainmen has been before the public now daily for months, and we are likely to become even more intimate with it before the year 1917 is far advanced, yet I venture the statement that not one man in a hundred can explain the underlying features of wage payments to trainmen, the method of computing their compensation, the various alternative methods or bases of computation afforded the men, the rules and regulations that modify the computations, and so forth. Yet there must be some conception of the problem in detail, before there can be sound judgment as to the merits of the claims made by

the trainmen or the replies of the railways thereto; it is worth while, therefore, to attempt a brief summary of the problem.

Just how, or why, the basis of railway trainmen's wages is what it is, or when or where it came into being, is beyond the scope of the present discussion. Suffice it that today, and for some years past, trainmen's compensation has been computed on a mileage, that is, a piecework, basis. If this were all, the problem would be comparatively simple. Unfortunately for the layman, however, a number of additional factors enter in to complicate the question, the most important of which is the time-limit principle, designed to protect the men on the slower freight trains. This time-limit principle provides, in brief, that a trainman is paid on a mileage basis except when his time slip shows that his hours on duty exceed a time-limit proportionate to his mileage. In the latter case he is paid on a time basis.

Both in freight and passenger service on most railways, the wage schedules provide that 100 miles or less shall constitute a day's work. The passenger service is usually on a speed basis of twenty miles per hour, and the freight service ten miles per hour. That is, the standard working day is five hours for passenger crews and ten hours for freight crews. A man called for work is guaranteed a full day's pay no matter how few hours he works or how few miles his train runs. If a freight engineer is on duty ten hours or more without running 100 miles he is paid as much more than a day's pay as his hours are above ten, and if he runs 100 miles or more in less than ten hours he is paid as much more than a day's pay as his miles are above 100. If he either works more than ten hours or runs more than 100 miles, or both, he receives payment for the overtime or the excess mileage, whichever produces the greater amount of wages. In other words, if the freight train on which a man is employed averages less than ten miles an hour he is paid on the hourly basis; if it averages more than ten miles, he is paid on the mileage basis. The result is that practically no train employes work more than ten hours for a day's pay, and thousands work less. Thus, the ten-hour day in railway train service merely indicates the *maximum limit* of time for which a day's pay is granted, although in other industries a ten-hour day means that employes not only do not work more than ten hours, but also do not work less than ten hours, to earn a day's pay.

III THE TRAINMEN'S BROTHERHOODS

Railway trainmen maintain perhaps the best organized labor unions in the world, closely knit together, ably generalled, well financed, with a keen consciousness of their power. The Brotherhood of Locomotive Engineers, organized in 1863, has now 75,000 members. This organization has been termed "perhaps the most aristocratic of trade unions." The Brotherhood of Locomotive Firemen and Enginemen, organized in 1873, reports about 85,000 members; the Order of Railway Conductors, organized in 1868, reports about 50,000 members; while the Brotherhood of Railroad Trainmen, organized in 1883, reports a membership of 135,000.

These four organizations, commonly known as the "brotherhoods," comprise about 350,000 members, or about nine-tenths of the total number of railway trainmen in the United States. Trainmen received in 1916 wages aggregating about \$400,000,000. That they are among the best paid railway employes is shown by the fact that they form about 17 per cent, or not quite a fifth, of the total number on the railway pay roll, but receive about 27 per cent, or over one-fourth, of the total wages. They have also what are probably the largest earnings of any large class of skilled labor in the world. Official returns of trainmen's earnings in 1916 have not yet been filed by all the railways with the Interstate Commerce Commission, but preliminary tabulations covering 124 roads, with an operated mileage of 144,000 miles, indicate average annual earnings approximating \$1,970 for enginemen, \$1,200 for firemen, \$1,700 for conductors, and \$1,045 for other trainmen.

IV THE DEMAND OF 1916

The four brotherhoods came together in 1916 for a concerted demand on the railways, their employers. Each of the brotherhoods had waged regional fights before; in several cases two or three of the brotherhoods had joined hands in a regional fight for higher rates of pay. But no one brotherhood had made nation-wide demands before, nor had the four brotherhoods worked together even in regional demands. It was for the first time, then, that the four brotherhoods joined forces in 1916 and made a concerted demand on practically all railways of the United States, on behalf of all the trainmen. Here, indeed, was an impressive demand, not only in

volving 350,000 to 400,000 workers directly, but threatening to throw out of work perhaps a million other railway employes, who would be forced to quit their duties if the trainmen, failing to gain their ends peaceably, should tie up railway operation by means of a strike.

The gist of their demand was as follows: In road service, 100 miles or less, eight hours or less, shall constitute a day; overtime shall be computed on a time-and-one-half basis, and will begin after eight hours on a run of 100 miles or less, or on a longer run when the time on duty exceeds the miles run divided by twelve and one half. The eight-hour day shall replace the ten-hour day in yards, overtime shall begin after eight hours, and shall be computed on a time-and-one-half basis.

On the face of it, this demand simply replaces the ten-hour day with an eight-hour day, and establishes an overtime rate of time-and-a-half. As a matter of fact, there are several underlying features that considerably affect the bearing of the demand. Notice, for one thing, that the brotherhoods do not abandon mileage as the chief factor in computing compensation, but strengthen the time-limit principle by increasing the speed basis from ten miles to twelve and one half miles. Again, the demand applies only to the freight service, although this is not specifically stated; for practically all passenger wage schedules establish the basic day of five hours. Still further, and most important of all, the demand recognizes the exigencies of train operation by claiming overtime pay on runs over 100 miles not after eight hours, but after such number of hours as represents the mileage divided by twelve and one half. Thus on a run of 125 miles overtime would not commence until ten hours had elapsed; on a run of 140 miles, eleven hours and twelve minutes; and so on. This point is of great significance, and will be developed later.

The demand of the trainmen was formally made in March, 1916. Through various stages negotiations proceeded till they landed both sides in absolute deadlock. In June of that year the brotherhoods proceeded to take a "strike vote," or referendum, indicating the willingness or unwillingness of each individual trainman to go on strike in order to gain the desired ends. Under the constitutions of three of the brotherhoods the leaders have no authority to call a strike unless and until directly empowered to do

so by referendum vote of two-thirds of the members involved. In late July, 1916, the result of this vote was announced as overwhelmingly in favor of a strike, and negotiations were resumed. These again resulted in deadlock, and the President intervened to save the situation, if possible, and avoid a national railway tie-up, with all its attendant suffering and ruin.

V THE ADAMSON EIGHT-HOUR LAW

The result of the President's efforts is still fresh in our minds. After protracted conferences with both sides, it was discovered that a secret strike order had been issued by the brotherhood leaders, effective on Labor Day. At the President's behest, Congress thereupon enacted the so-called Adamson eight-hour law, which was approved on the eve of the strike and just in time to stay it.

Section 1 of the law provides that

eight hours shall, in contracts for labor and service, be deemed a day's work and the measure or standard of a day's work for the purpose of reckoning the compensation for services of all railway employees engaged in any capacity in the operation of trains used for the transportation of persons or property.

Section 2 creates a commission of three, to "observe the operations and effects of the institution of the eight-hour standard work-day."

Section 3 provides

that pending the report of the commission and for a period of thirty days thereafter the compensation of railway employees subject to this act shall not be reduced below the present standard day's wage, and for all necessary time in excess of eight hours such employes shall be paid at a rate not less than the pro rata rate for such standard eight-hour work-day.

The provisions of the act were made effective January 1, 1917.

VI THE RAILWAYS AND THE EIGHT-HOUR WORK DAY

Certain specific reasons are given by the railways for opposing the principle of an eight-hour working day in train operation.

First. Passenger and freight trains are run at all hours of the day and night. Trains that run on a regular schedule must be manned with crews, no matter what hour of the twenty-four it may be. Trains that do not run on schedule are usually the slow freight trains, handling local or way freight. These are frequently

sidetracked to allow the passage of passenger trains and of scheduled freight trains; they are necessarily sandwiched into the train dispatcher's scheme as best he may arrange for them; they are the footballs of the tracks, and there can be no thought of running them within any regular time limits. Even through freight trains, and sometimes mixed passenger and freight trains as well, may fall into this same category. The situation is further complicated by the evident necessity of running trains at varying rates of speed. Hence arises the impossibility of putting all trains onto an eight-hour basis, or some trains even onto a ten-hour basis. This is the principal railway argument against the eight-hour work day. As we have seen, the argument has a basis in that provision of the trainmen's demand which, on runs above 100 miles, defers the payment of overtime as much beyond eight hours as the mileage is more than 100. By including such a provision in their demand, the trainmen clearly recognized that the eight-hour maximum work-day is not feasible on all runs or under all conditions.

Second. At most of the railway terminal points towns have sprung up and the railways have expended millions in purchasing land, laying out freight yards, and building necessary roundhouses, repair shops, freight depots and warehouses. These facilities have been distributed along the line of each road at various intervals, which are generally covered by the slower freight trains in from ten to twelve hours. Now shorten the work day to eight hours, and you must either move your terminals nearer together or speed up your trains.

Third. The alternative of moving terminals closer together is clearly out of the question. Not only would it cost billions in money, but the change would throw countless communities out of their line of natural development, would disturb property values, and in any case would be well nigh impracticable as a physical accomplishment. Were the railway network to be constructed in the future, or were even now in process of construction, the thing might be practicable; with the railway system already established and solidified, however, this alternative is unthinkable.

Fourth. To speed up freight trains is the other alternative. It would require freight crews to make their runs in eight hours or less instead of ten, or to put it differently, to average twelve and one-half miles an hour instead of ten miles. This alternative has

been proposed by the trainmen themselves as a solution of the problem, and was in fact the speed basis established by their demand of 1916. Run your freight trains a little faster, they argue, cut down the number of cars or increase the engine power if necessary, but at any rate increase your train speed.

Here is the railways' answer: All past increases in cost of capital, of materials and supplies, and of labor have been neutralized only by increasing the efficiency of railway operation. This has consisted almost wholly in increasing the capacity of freight cars, the number of cars in a train, and above all the length and weight of freight trains.¹ All these factors of increased efficiency have served merely to offset the increasing costs of operation, which are indisputable. They have also served of necessity to slow down the normal rate of speed of the long, heavy trains, both on the line and in terminal yards.

Another advantage claimed for larger train loads is their favorable effect on the safety of railway operation; the larger the average train load, the fewer are the trains required to handle a given amount of freight. This lowers the density of traffic, reduces the chances of collision at meeting and passing points, and increases the margin of safety. This is especially true where speed is necessarily reduced because of great train weight and length.

Without dwelling on this point of comparative safety, it is clear that if increased physical efficiency has served to offset the increasing costs of operation, then lowering that efficiency by decreasing length of trains and size of train loads to secure increased speed will mean increased operating costs, which in turn must be offset by increased revenues. And increased revenues can only be had by means of higher freight and passenger rate levels.

This brings us to the kernel of the railway point of view, and to their specific arguments against the eight-hour work day. If you cannot move your terminals, then you must either speed up your trains, sacrificing efficiency and increasing your operating costs thereby, or else you must maintain your present operating conditions, run your freight trains ten hours or more a day, and be pre-

¹ From 1910 to 1915 average freight car capacity increased from 36 tons to 40 tons, number of cars per freight train from 28.3 to 34, average train load from 380 tons to 474 tons, average tractive power per locomotive from 27,300 pounds to 31,500 pounds.

pared to pay an annual overtime bill variously estimated up to sixty millions. Long heavy trains unquestionably require greater running time than lighter trains; lower speed is a part of the price paid for efficiency; if, then, the public demands operating efficiency, using the term "efficiency" in its physical sense, it must pay the bill in the shape of overtime payments to trainmen; if, however, the public demand emphasizes the eight-hour work day feature, then efficiency must be sacrificed and the toll will be higher operating costs in the form of a larger force of trainmen to handle the traffic. To put it differently, the one alternative will call for more compensation to the present operating force; the other alternative will call for a larger operating force, the average earnings of each member of the force remaining as at present. Both alternatives will increase the *aggregate* cost of railway operation.

VII THE EFFECT OF THE EIGHT-HOUR LAW

Railway officials and the trainmen have given considerable thought, and have held a number of conferences, regarding the meaning of the eight-hour law, and the courts have also been called upon to interpret it. Discussion has centered on the meaning of the words of the first section reading "eight hours shall, in contracts for labor and service, be deemed a day's work and the measure or standard of a day's work for the purpose of reckoning the compensation for services." The whole situation hangs on this phrase, which makes no mention of miles run, but only of hours per day.

Some have emphasized the phrase "be deemed a day's work," and have argued that this calls for an actual *work day* of eight hours, no more and no less. They point also to the words "eight-hour standard work day," in the second section as corroborating their position². A passenger engineman or conductor who now runs his 100 miles in four hours would, under this strict interpretation, be required to put in another four hours or be satisfied with half a day's pay. If the courts uphold this interpretation, the railways might be forced to grant compensatory privileges that would neutralize the eight-hour requirement. They might, for example,

² In this connection it is significant that the President's annual message to Congress, December 5, 1916, states that by passing the eight-hour law Congress "established the eight-hour day as the legal basis of *work* and wages in train service." The italics are mine.

be forced to double the rate of pay per 100 miles in passenger service; the engineman could then well afford to stop at the end of his four-hour run, having earned the equivalent of his former day's pay in what under the law would technically be only half a day.

Others have emphasized the phrase "measure or standard of a day's work for the purpose of reckoning compensation," and argue from this the intention of Congress to make eight hours the basic *pay day* rather than work day. This view is strengthened in that the act provides overtime pro rata for every hour above eight.

How sound the varying interpretations of the eight-hour law may prove to be, only the future will show, and much will depend on the findings of the commission of three provided by the act and already constituted by the President as follows: Major General Geo. W. Goethals, U. S. A., chairman; George Rublee, of the Federal Trade Commission; Edgar E. Clark, of the Interstate Commerce Commission. This commission has a maximum of ten months, or until November 1, 1917, within which to file its report, and the railways must hold to the provisions of the act for thirty days thereafter. What will then come to pass is given only to a seer to surmise.

If the railways have established their argument that the eight-hour law means increased operating costs, the final question must deal with the amount of the increase and the incidence of the burden.

It is clear that the public in the last analysis pays the cost of railway transportation. Whether or not a given sum can be absorbed by the railways for the time being without increasing transportation rates is a less important consideration than the actual amount by which such a provision as the eight-hour law will increase railway expenses. To ascertain this amount is well nigh impossible until the necessary readjustments have been made. If the eight-hour principle becomes firmly established as a factor in train operation, it is not unreasonable to suppose that the pressure of circumstances will gradually extend the same principle into other branches of railway operation, each extension bringing its burden of increased cost. For the economic principle that decreased hours of labor do not necessarily lead to increased costs may or may not apply to the railway industry. Even if it does prove applicable, it must not be forgotten that the demand of the railway

trainmen in 1916 for an overtime rate of time-and-one-half is as yet unappeased. This feature of the demand, the railways have estimated, will add not less than forty millions to their annual wage bill. Thus the eight-hour law may prove but the opening wedge to a considerable increase in the future cost of railway operation.

VIII CONCLUSION

Two questions remain to be answered. First, did the trainmen's demand contemplate a real eight-hour day, or was it merely a bid for higher rates of pay? And second, what did the eight-hour law give them?

As to the first question, the brotherhoods have consistently claimed that their demand for a so-called "punitive" overtime rate—that is, a rate so much above the regular hourly rate that the railways would strive to avoid overtime—proved the sincerity of their avowed desire for a maximum work day of eight hours. In their journals they usually spoke of their demand as one "for an eight-hour work day, with a penalty for overtime of time and a half pay." We have seen, however, that the force of this claim is weakened by the provision in their demand for deferring overtime on runs above 100 miles. This provision is evidence that the brotherhoods realized the impossibility of enforcing the eight-hour principle on the long runs. The railways have just as consistently claimed that the trainmen were seeking higher rates of pay rather than shorter hours of work, and that the principle of punitive overtime was inserted merely as one element of increased pay. Knowing that the running time of trains could be shortened but little, if at all, the trainmen figured that the time-and-a-half provision would increase their compensation for all the long runs.

The second question concerns actual conditions, that is, the effect of the eight-hour law. To contrast what the trainmen demanded with what the law gave them, the main points in each may be summarized as follows:

The Demand

1. Ten hours' pay for eight-hour day.
2. Time and a half for overtime.

The Law

1. Ten hours' pay for eight-hour day.
2. Pro rata for overtime after eight hours.

Thus the law gave them only part of what they sought. As the matter now stands, by providing pro rata for overtime the law makes it a matter of little moment to the railways whether the running time of a train is long or short, provided only they maintain the speed rate implied in the law. Thus for a run of 125 miles the train crew will receive one and a quarter days' pay, because of the mileage pay basis, and it makes little difference to the railway whether the day is measured by eight hours or ten hours. If the shorter time, then the extra quarter day's pay will be for excess mileage; if the longer time, it will be for excess time. However denominated, the amount actually paid for the run will be the same in either case.

Under the eight-hour law, every run for which the hours exceed eight by a percentage greater than that by which the length of the run exceeds 100 miles, will carry an increase of pay to the train crew. And the proportional increase will be more, the greater the percentage of hours above eight exceeds the percentage of miles above 100. This holds for all cases where the mileage basis of pay remains in force.

The increases the eight-hour law will bring the men in road service will be on those long runs that cannot be completed within the time limit of miles divided by twelve and one-half.³ If the railways are correct in their statement that the running time of these trains cannot be shortened, then the aggregate pay roll in the slower freight service will be considerably increased. But, mark you, this will not be the result of any shortening of working hours, but of an increase in the basic hourly rate of pay. This confirms the contention of the roads that the demand of 1916, and more especially the eight-hour law, provides not a shorter basic *work day* but a shorter basic *pay day*.

If additional proof of this fact were needed, it is furnished by comparing the language of the sixteen-hour law and telegraphers' nine-hour law of 1907, with the so-called "eight-hour" law of 1916. The hours of service act of March 4, 1907, made it unlawful for any railway "to require or permit" employes engaged in train operation to remain on duty longer than sixteen hours; similarly, it provided that no telegraph or telephone operator connected with the movement of trains "shall be required or permitted" to remain on duty

³ There is some question whether the law applies to yard and work service, where the time basis of payment usually holds.

longer than nine hours. In both cases there is a distinct prohibition of longer hours than the sixteen and nine respectively prescribed. In the case of the "eight-hour law" of 1916, however, there is no such prohibition. The provision simply is that "eight hours shall be deemed a day's work," and by fixing overtime rates of pay the law clearly indicates the belief of its framers that overtime work is not only necessary, but to be expected.

If, then, the Adamson eight-hour law does not *ipso facto* provide an eight-hour working day, and if the principal result of the law will be, as we have seen, to increase either the number of employes or the amount of overtime payments, then it follows that the effect of the law will be essentially to increase the aggregate of railway wages.